

## OIB - P-3 Orion 03/31/17 Science Report

**Aircraft:**

[P-3 Orion](#) ([See full schedule](#))

**Date:**

Friday, March 31, 2017

**Mission:**

OIB

**Mission Location:**

Greenland

**Mission Summary:**

OIB completed the high priority Alexander-Petermann 01 mission. This mission was designed to re-fly most of the Cape Alexander ICESat-1 groundtracks flown in 2012, two flowlines of Petermann Glacier which OIB flies almost every year, and the centerlines of Melville, Tracy and Heilprin Glaciers. Over Petermann glacier two new longitudinal lines for the purpose of collecting gravity data were included. The mission was also designed to fly two new flowlines of Farquhar Glacier and Harald Moltke Brae and a possible Cold War-era waste site to help assess the possibility that the waste may be liberated by ongoing ice loss in the area. The suspected waste site was overflown at 16:15:46Z. Due to the earlier closing time of Thule Airport on Friday we had to cut out the Melville and Farquhar Glacier lines, two Cape Alexander lines, and the Harald Moltke Brae line. These missions can be made up in a mop-up later in the campaign.

The weather forecast for the mission showed mainly clear skies which is what we experienced on flight, all instruments onboard worked well.

**Data volumes**

ATM: T5: 24 Gb      T6: 126 Gb

FLIR: 13 Gb

Cambot: 34 Gb

KT19: 10 Mb

DMS: 74 Gb

Snow/Ku radar: 1.2 Tb

MCoRDS: 1.5 Tb

Accumulation radar: 1.2 Tb

Gravity: 2.6 Gb

data on: 1129

data off: 1737

**Submitted by:**

Nathan T. Kurtz on 03/31/17

**File:**

 [alex-petermann01.pdf](#)

**Related Flight Report:**

### P-3 Orion 03/31/17

**Flight Number:**

Science Flight #14- Alexander-Petermann Line

**Payload Configuration:**

OIB Arctic

**Nav Data Collected:**

No

**Total Flight Time:**

6.5 hours

**Submitted by:**

Kelly Griffin on 04/05/17

**Flight Segments:**

<b>From:</b>	BGTL	<b>To:</b>	BGTL
<b>Start:</b>	03/31/17 11:15 Z	<b>Finish:</b>	03/31/17 17:45 Z
<b>Flight Time:</b>	6.5 hours		
<b>Log Number:</b>	<a href="#">17P006</a>	<b>PI:</b>	Nathan Kurtz

<b>Funding Source:</b>	Bruce Tagg - NASA - SMD - ESD Airborne Science Program
<b>Purpose of Flight:</b>	Science

**Flight Hour Summary:**

	<b>17P006</b>
<b>Flight Hours Approved in SOFRS</b>	333.6
<b>Total Used</b>	307.1
<b>Total Remaining</b>	26.5

**17P006 Flight Reports**

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
<a href="#">02/24/17</a>	Airworthiness Test Flight	Check	1	1	332.6
<a href="#">02/26/17</a>	Project Test Flight #1	Check	4.9	5.9	327.7
<a href="#">02/27/17</a>	Project Test Flight #2	Check	3	8.9	324.7
<a href="#">03/07/17</a>	Transit Flight	Transit	8.2	17.1	316.5
<a href="#">03/09/17</a>	Science Flight #1 - North Pole Transect	Science	8	25.1	308.5
<a href="#">03/10/17</a>	Science Flight #2 - Laxon Line	Science	8.5	33.6	300
<a href="#">03/11/17 - 03/12/17</a>	Science Flight #3 - Chukchi West Line	Science	8	41.6	292
<a href="#">03/12/17 - 03/13/17</a>	Science Flight #4 - North Beaufort Loop Line	Science	8.1	49.7	283.9
<a href="#">03/14/17 - 03/15/17</a>	Science Flight #5 - East Beaufort Loop Line	Science	8	57.7	275.9
<a href="#">03/20/17</a>	Science Flight #6 - Sea Ice South Basin Transect (to Thule)	Science	8.1	65.8	267.8
<a href="#">03/22/17</a>	Science Flight #7 - North Flux 02	Science	7.9	73.7	259.9
<a href="#">03/23/17</a>	Science Flight #8 - Zig Zag West Line	Science	7.9	81.6	252
<a href="#">03/24/17</a>	Science Flight #9 - CryoVEx Line	Science	5.8	87.4	246.2
<a href="#">03/27/17</a>	Science Flight #10 - Northwest Coastal A Line	Science	7.4	94.8	238.8
<a href="#">03/28/17</a>	Science Flight #11 - North Central Cap 01 Line	Science	7.6	102.4	231.2
<a href="#">03/29/17</a>	Science Flight #12 - Ellesemere Island 01 Line	Science	7.6	110	223.6
<a href="#">03/30/17</a>	Science Flight #13 - Ellesemere South Line	Science	7.9	117.9	215.7
<a href="#">03/31/17</a>	Science Flight #14- Alexander-Petermann Line	Science	6.5	124.4	209.2
<a href="#">04/03/17</a>	Science Flight #15- Zachariae 79N Fram Straight and BGTL ENSB Transit	Science	7.4	131.8	201.8
<a href="#">04/05/17</a>	Science Flight #16 - Svalbard North Line (High Priority)	Science	7	138.8	194.8
<a href="#">04/06/17</a>	Science Flight #17- Svalbard South Mission (High Priority)	Science	8.5	147.3	186.3
<a href="#">04/07/17</a>	Science Flight #18- Combined Zig Zag East Mission and Transit ENSB to BGTL	Science	8.3	155.6	178
<a href="#">04/10/17</a>	Science Flight #19- North Central Gap 3	Science	7.8	163.4	170.2
<a href="#">04/11/17</a>	Science Flight #20- CryoVex 2 (High Priority)	Science	7.8	171.2	162.4
<a href="#">04/12/17</a>	Science Flight #21-Northwest Coastal C	Science	7.2	178.4	155.2

<a href="#">04/13/17</a>	Science Flight #22-North Glaciers 02 Prime (High Priority)	Science	8.2	186.6	147
<a href="#">04/14/17</a>	Science Flight #23-IceSat-2 North/CryoSat-2 SARIn	Science	7	193.6	140
<a href="#">04/17/17</a>	Science Flight #24-Humboldt 01(High Priority)	Science	7.8	201.4	132.2
<a href="#">04/19/17</a>	Science Flight #25-Sea Ice - South Canada Basin (MediumPriority)	Science	7.8	209.2	124.4
<a href="#">04/20/17</a>	Transit Flight to Kangerlussuaq	Transit	3	212.2	121.4
<a href="#">04/21/17</a>	Science Flight #26-Southeast Coastal	Science	8	220.2	113.4
<a href="#">04/22/17</a>	Science Flight #27-Helheim-Kangerd	Science	7.8	228	105.6
<a href="#">04/24/17</a>	Science Flight #28-Geikie 01 (High Priority)	Science	8	236	97.6
<a href="#">04/26/17</a>	Science Flight #29-Devon-Bylot (Medium Priority)	Science	7.9	243.9	89.7
<a href="#">04/28/17</a>	Science Flight #30-Penny 01 (Medium Priority)	Science	6	249.9	83.7
<a href="#">04/29/17</a>	Science Flight #31-Thomas - Jakobshavn 01	Science	8.4	258.3	75.3
<a href="#">05/01/17</a>	Science Flight #32-Thomas - Jakobshavn-Eqip-Store	Science	8.4	266.7	66.9
<a href="#">05/02/17</a>	Science Flight #33-Thomas - ICESat-2 Central	Science	7.9	274.6	59
<a href="#">05/03/17</a>	Science Flight #34-Thomas - Southwest Coastal A	Science	8.3	282.9	50.7
<a href="#">05/05/17</a>	Science Flight #35-Helheim-Kangerdlugssuaq Gap B (High Priority)	Science	8.2	291.1	42.5
<a href="#">05/06/17</a>	Science Flight #36-Helheim-K-EGIG-Summit	Science	8	299.1	34.5
<a href="#">05/08/17</a>	Science Flight #37-Southeast Glaciers 01 (High Priority)	Science	8	307.1	26.5

*Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.*

**Source URL:** [https://airbornescience.nasa.gov/science\\_reports/OIB\\_-\\_P-3\\_Orion\\_03\\_31\\_17\\_Science\\_Report](https://airbornescience.nasa.gov/science_reports/OIB_-_P-3_Orion_03_31_17_Science_Report)